EXCITED STATES OF ^{65}Cu

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The energies, spectroscopic factors, magnetic dipole and electric quadrupole moments of the ground and excited states of ^{65}Cu, as well as reduced probabilities of electromagnetic transitions between them have been calculated in the framework of dynamic collective model [1].

It differs from other nuclear models by the possibility of uniform description of spherical, transitional and deformed nuclei and consideration of the influence of vacuum fluctuations of quasiparticles on the renormalization of one-particle moments and effective forces, as well as the influence of the Pauli principle on the formation of the collective and quasiparticle modes and their interconnection. Multy-phonon states (up to ten phonons) of main band of even-even core are taken into account.

In figure the part of level scheme of ^{65}Cu is presented. For the low-lying
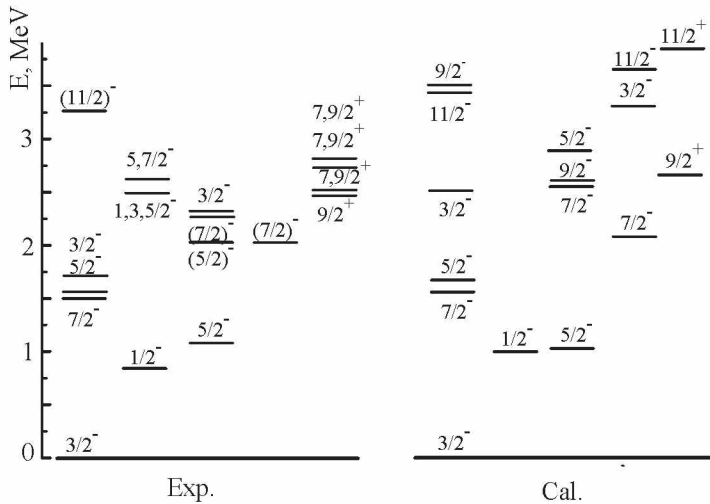
states we distinguish five bands in this isotope, formed by coupling of $3/2_1^-$, $1/2_1^-$, $5/2_1^-$, $7/2_1^-$ and $9/2_1^+$ - states with collective states of the main band of the core. Results of the calculations well describe experimental data.

1. G.B.Krygin, V.E.Mitroshin // Fiz. Elem. Chastits At. Yadra. 1985. V.16. P. 927.